



## ABSTRACT OF THE DISCLOSURE

Method and apparatus for etching a metal layer disposed on a substrate, such as a photolithographic reticle, are provided. In one aspect, a method is provided for processing a substrate including positioning a substrate having a metal photomask layer disposed on a silicon-based material in a processing chamber, introducing a processing gas comprising carbon monoxide, a chlorine containing gas, and optionally, an inert gas into the processing chamber, generating a plasma of the processing gas in the processing chamber, and etching exposed portions of the metal layer disposed on the substrate.